



Benefits are summarized from two perspectives in this chapter. First, benefits are listed by capability area: safety information exchange, credentials administration, and electronic screening. Next, benefits are summarized by stakeholder groups: states, carriers, and shippers.

4.1 Benefits of Safety Information Exchange

The expected benefits resulting from the safety information exchange capabilities are providing more accurate and timely safety and related credentialing information to federal, state, and motor carrier personnel to allow them to improve the effectiveness of their safety programs. In the past, it has typically taken 90 days or more for the results of an inspection report to be available to the enforcement community. With the Commercial Vehicle Information Systems and Networks (CVISN) Level 1 changes, this time is reduced to less than 60 minutes. With better information, government agencies can focus limited resources on operators whose records indicate a safety history problem. Motor carriers can use the data to help evaluate their own performance and target areas for improvement.

Some specific safety benefits documented to date include:

- In a study of 40,000 commercial motor vehicle inspections, safety inspectors removed an additional 4,000 (increasing from 8,000 to 12,000) unsafe drivers and vehicles using advanced safety information systems instead of traditional methods. [USDOT, 1998]
- Improvement in safety data quality and transfer time through Electronic Data Interchange (EDI) vastly improves safety monitoring. Roadside inspectors receive more current, timely information. [USDOT, FHWA-JPO-97-013]
- The ability to identify hazardous cargo on vehicles involved in crashes can reduce the risk to those involved in the crash, the emergency response team, and the people living and working near the crash scene by reducing the time needed to properly handle the material. [Report to Congress, 1996]
- Electronic screening, automated roadside safety inspections, and onboard safety systems could reduce fatalities by 14 to 32 percent. [Report to Congress, 1996]

4.2 Benefits of Credentials Administration

The expected benefits resulting from the credentials administration capabilities are more efficient and responsive administrative processes for carriers and government agencies. It has been estimated that the cost of compliance with regulations for both carriers and government may be as high as \$6 billion annually. Even a small percentage reduction in this figure can provide a high return on investment. In addition to the direct savings, having these processes automated will provide better information for measuring their cost and effectiveness and will provide a better environment for continual improvement of these processes and systems over time.

Some specific credentialing benefits documented to date include:

- A case study involving eight states estimated that the deployment of Intelligent Transportation Systems/Commercial Vehicle Operations (ITS/CVO) technologies for electronic credentialing would have up to a 6:1 benefit/cost ratio. [Rubel, 1998]
- Electronic credential administration enables state agencies to share and exchange accurate, current, and protected motor carrier information both inside and outside the state. [Report to Congress, 1996]
- ITS/CVO technologies are predicted to deter tax evasion, which could save an estimated \$500,000 to \$1.8 million per State. [Report to Congress, 1996]
- Labor costs for administrative compliance are reduced significantly for medium and large-sized carriers using EDI, showing a benefit/cost ratio of 4:1 and 20:1, respectively. [American Trucking Associations Foundation, June 1996]

4.3 Benefits of Electronic Screening

The expected benefits resulting from the electronic screening capabilities are that state safety enforcement resources can be focused on high-risk operators and safe and legal carriers will be able to provide more efficient movement of freight.

Some specific electronic screening benefits documented to date include:

- Washington State Department of Transportation (WSDOT) officials expect to reduce road and bridge damage from oversize/overweight (OS/OW) loads through implementing multiple ITS technologies including roadway weigh-in-motion (WIM) scales at electronic clearance stations, improved mobile enforcement systems, and an automated permit system. Within a 10-year evaluation period of their infrastructure rehabilitation and preservation expenditures, WSDOT estimates the value of infrastructure costs avoided to grow from zero to a nominal 0.7 percent. ["Draft Guidelines for Participation in the Commercial Vehicle Information Systems and Networks (CVISN) Deployment Program," 1998]
- Carriers that pay their drivers by the hour can save time and money through reduced labor costs from electronic screening at weigh stations. Savings ratios are 3:1 to 7:1 for small carriers; 4:1 to 7:1 for medium-sized carriers; and 2:1 to 4:1 for large carriers. [American Trucking Associations Foundation, 1996]
- Roadside electronic clearance allows safe and legal carriers to bypass weigh and inspection stations saving time and money. [USDOT, 1998]

4.4 Summary of Benefits of CVISN to States

The benefits to states of implementing CVISN Level 1 include:

- ♦ Data interchange among states, carriers, financial institutions, and insurance companies will be electronic, and therefore more timely and accurate and less expensive.
- ♦ Administrators and enforcement personnel will have rapid, electronic access to required data.
- ♦ Credentials issuance, tax filing, interstate reconciliation, and audits will be automated to proceed more effectively and efficiently.
- ♦ Better enforcement of registration, licensing, weight, size, and tax regulations.
- ♦ Enforcement resources can be focused on noncompliant carriers and drivers.
- ♦ Better customer service to safe and legal motor carriers and drivers.
- ♦ In the long term, policies and practices can be based on measured data and careful analysis.

4.5 Summary of Benefits of CVISN to Motor Carriers

The benefits to motor carriers of implementing CVISN Level 1 include:

- ♦ Reduced administrative burden in regulatory compliance.
 - Electronic credentials application and electronic tax filing
 - Electronic access to credentials, tax, and safety data.

- ♦ Vehicles of safe and legal carriers will incur less delay.
 - Mainline electronic screening
 - Automated inspections
 - Automated international border crossing.
- ♦ Uniformity of credentialing and electronic screening services across North America.
- ♦ Reduced numbers of illegal and unsafe carriers, providing a “level playing field” for competition.

4.6 Summary of Benefits of CVISN to Shippers

The benefits to shippers as a result of doing business in states and with motor carriers that have implemented CVISN Level 1 include:

- ♦ Improved motor carrier safety
- ♦ More efficient and effective motor carriers
- ♦ Fewer delays and more predictable schedules
- ♦ Improved access to motor carrier safety information.

